

Multi-fuel boiler ORLIGNO 100



ISO 9001   ISO 14001

Compliant with EN 303 - 5 norm



Multi-fuel boiler ORLIGNO 100

A new boiler manufactured by Orlandi is a universal appliance designed to combust solid fuels. It is made of boiler steel in accordance with EN 303 - 5 norm and is equipped with a uniquely constructed cast iron grill. Depending on components the boiler can be used to combust short-blazed solid fuels, such as: coal, wood, wood briquettes, or coke as well as pellet biomass or alternatively grain crops. Due to the use of copper cooling coil the appliance can work in a pressurized system. The boiler has a 70-litre loading chamber capable of combusting wooden blocks up to 50cm long. A large heat exchange surface and a double pull of fumes' flow ensure a high efficiency and productivity of the boiler.



THE BOILER'S ADVANTAGES:

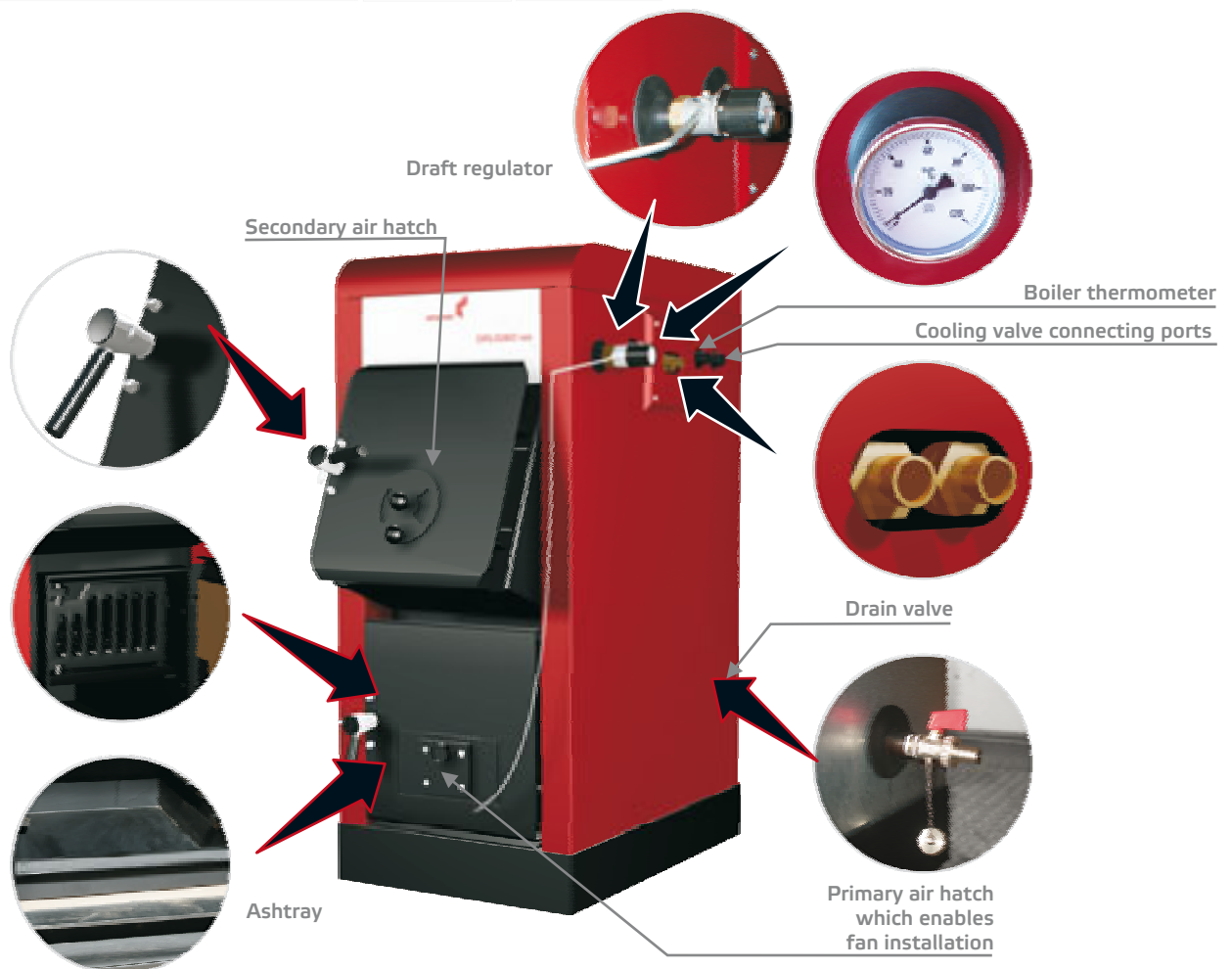
- ❑ efficiency up to 85 %
- ❑ made of boiler steel
- ❑ unique design
- ❑ a simple and long-lasting construction
- ❑ user-friendly and easy to clean
- ❑ fuel independence capable of combusting different types of fuel
- ❑ loading chamber's capacity of over 70 litres
- ❑ capable of combusting wooden blocks up to 0.5 m. long
- ❑ the appliance can be fitted in a pressurized system
- ❑ fumes emission compliant with the european union regulations
- ❑ multi-functional
- ❑ 5-year warranty for boiler tightness

5-year warranty for boiler tightness

Renowned technology - ORLIGNO 100

The basic version Orligno 100 is capable of combusting solid fuels such as: coal, coke, wood and wood briquettes using natural chimney draft. Secondary air hatch is set depending on the type of used fuel based on the colour of the flame that you can see (it should be light violet). The primary air hatch is always adjusted depending on the current need for the heat power using draft regulator without involving electricity.

Delivery range	Standard equipment	Additional equipment
Chimney pull gauge	X	
Ashtray drawer	X	
Cooling hose	X	
Thermometer	X	
Drain port	X	
A set of cleaning utensils	X	
Electronic chimney pull gauge		X
Cooling system with a regulator		X



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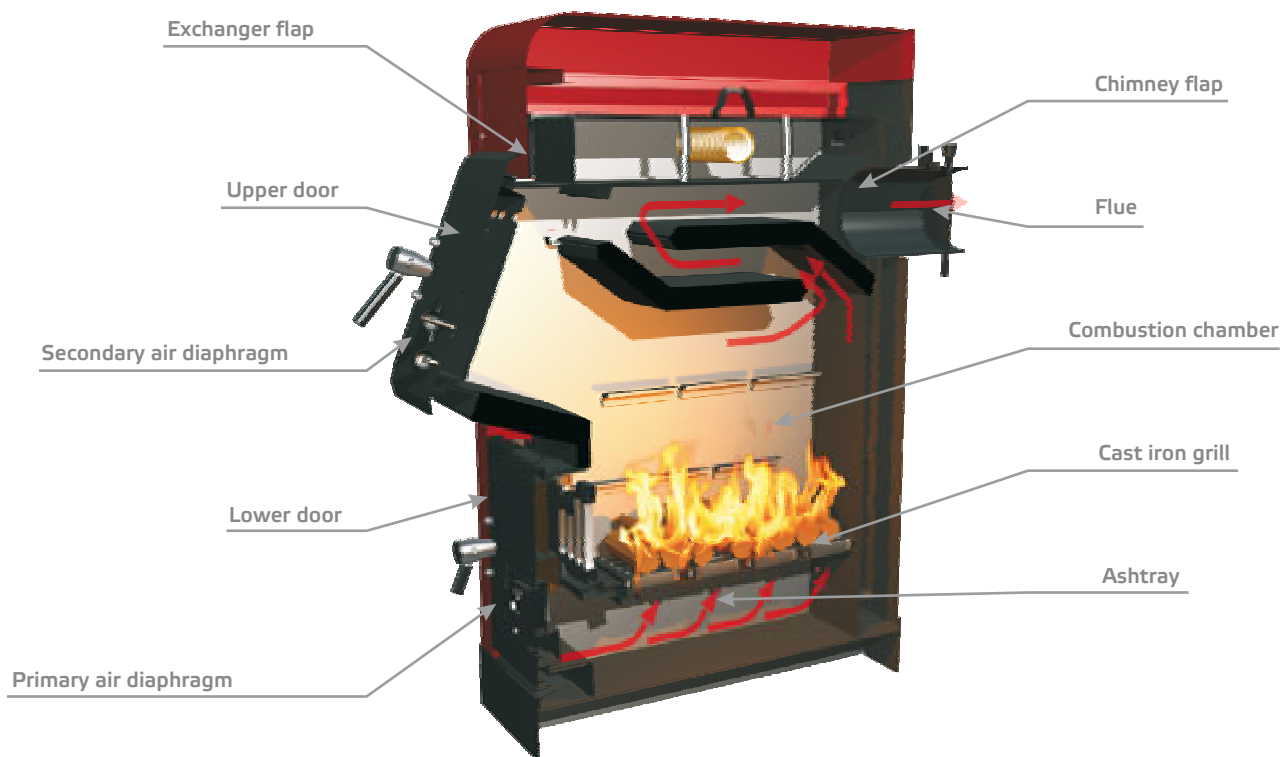


Boiler technical parameters		
Description	Measured in	Value
Boiler class		3
Boiler efficiency coke / pellets	%	Up to 85/94.5
Permissible operating pressure	bar	3
Max temperature	°C	90
Min temperature	°C	60
Water capacity in the boiler	litre	60
Boiler weight	kg	305
Loading chamber capacity	litre	70
Upper door size	mm	300x300
Boiler power feed inner thread	inch	5/4"
Boiler return inner thread	inch	5/4"
Drain pipe inner thread	inch	1/2"
Cooling coil port inner thread	inch	1/2"

Boiler technical parameters		
Description	Measured in	Value
Heat power- wood	kW	14
Heat power- coal	kW	25
Heat power-coke	kW	30
Heat power-pellet	kW	16 or 24
Diameter of chimney flue	mm	160
Boiler's weight	kg	305
Time of fuel combustion		
Operating boiler- wood	hrs	2 - 4
Operating boiler- coal	hrs	4 - 8
Operating boiler- coke	hrs	4 - 8
Height	A - mm	1220
Width	B - mm	550
Depth	C - mm	1100

* the above numbers are net values, the size of the pallet and packaging needs to be added when considering transportation

Combustion process with a description of component parts.



5-year warranty for boiler tightness

Fuel independence - ORLIGNO 100 with a pellet combusting system


Orligno 100 with a pellet combusting system is a fully automated boiler with a modern "Fuzzy Logic" regulating method. The boiler combusts solid fuels as well as biomass- pellet or alternatively grain crops. The appliance is equipped with: burner with automatics, elastic feeding pipe, fuel container with a cover, a funnel for boiler sensor, a set of ceramic moulders and lower door which enables burner installation. Orligno 100 boiler with a pellet combusting system is available with a 16 kW or 24 kW burner.

When combusting granulated biomass the fuel is drawn from the container using auger and is then supplied to the burner through elastic feeding pipe. Depending upon the need for heat energy burning period lasts between 7 and 30 days. In the burner the fuel is automatically ignited with a 330 W heating element. The ash created whilst operating is automatically moved to the ashtray. In standard version the boiler is equipped with a boiler temperature gauge. However, when controlling room temperature and hot water for domestic use, it is essential to fit additional sensors. Moreover, there is a possibility to extend the regulation with modules which can control up to 16 independent heating circuits.



5-year warranty for boiler tightness





Burner and automatics - ORLIGNO 100 with a pellet combusting system

The burner enables combustion of pellet fuel with a diameter 6-8 mm and length 10-50 mm or alternatively grain crops while preserving low emission parameters safe for natural environment. The burner is made of heat resistant steel. The construction and technical solutions of the burner prevent the accumulation of ash and cinders which very often occur in similar appliances. The burner is very user-friendly, all that is required is to fill the burner with fuel and activate by pressing START.

The burner's advantages: automated three-phased ignition process which eliminates the igniting of gasses, flame control using photo sensor, operating boiler temperature control, more than 94.5% efficiency power regulation, energy efficient, can operate up to 16 heating circuits, Autostart function and settings saving in case of a power failure, self-cleaning, may combust grain crops (optional at extra cost).

Burner automatics is a modern microprocessor system which does not only control the boiler but also the central heating system and hot water for domestic use. The appliance steers the combustion process by supplying a suitable amount of air and fuel. Thanks to the application of semi-conducting transmitters, the power of the fan is regulated steadily. Used "Fuzzy Logic" algorithm enables control of many parameters. The system can be easily adjusted to the needs of the heating system.

Control panel – a large graphic FSTN display, large font and icons make the appliance user-friendly.

Two types of menu – basic and advanced. While using the appliance on an everyday basis, it can be controlled from the level of easily accessible basic menu.

INFO button – the regulator is equipped with an intelligent help function. Every parameter is described, the description can be viewed after pressing INFO button.

Modularly built CAN regulator – thanks to the application of CAN main industrial data exchange (used mainly in demanding motorization trade), the extension of control system is possible. Maximum extension is: 16 heating circuits, 4 hot water for domestic use circuits, 4 energy buffers.

5-year warranty for boiler tightness

A modern, productive 32-bit ARM processor - (ARM technology is widely used in mobile phones) enables the advanced control over the Fuzzy Logic II algorithm.

Alarms and errors record - the regulator keeps the record of 20 most recent alarms and errors, including the description, creation and confirmation dates.

Clock and calendar - the clock allows weekly programming of required room and hot water for domestic use temperatures. This leads to financial savings when it comes to buying fuel.

Statistics - the regulator stores in memory statistical data regarding system operations which enables work supervision and fuel saving. For example, the supervision of boiler temperature and burner power, fuel feeder working time.

Alarm sounding - built-in speaker sounds when there is an emergency situation within the boiler which improves safety of the appliance when in use.

Restoration of factory - settings allows to restore factory settings of the regulator.

Status light - signals each phase of the operating burner.

Burner's technical parameters

Parameter	Measured in	Burner	
		Burner	Burner
Heating power range for pellet	W	4 - 16	7 - 24
Heating power range for oats*	kW	3,6 - 14,4	6,3 - 21,6
Efficiency	%	>94,5	>94,5
CO emissions	ppm	<200	<200
Weight	kg	14	14,5
Feeder length standard	m	1,3 - 1,6	1,3 - 1,6
Feeder length (optional)	m	2,0; 2,5; 3,0	2,0; 2,5; 3,0
Fuel		pellets	pellets
Fuel diameter	mm	6 - 8	6 - 8
Fuel (optional) humidity up to 15%	%	oats	oats
Voltage	V	230	230
Average electricity consumption	W	30	35
Level of protection		IP 40	IP 40
Container size – standard -			
Width, depth, height	mm	600x600x1400	600x600x1400
Container capacity – standard	L	315	315
Container size – heightened			
Width, depth, height	mm	600x600x1900	600x600x1900
Upper tank capacity		485	485

*humidity less than 15%



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